

# Contact Lens Solutions With Hydrogen Peroxide: To Avoid Injury, Follow All Instructions

**I**f you wear contact lenses, the way you clean them can affect your vision and health.

Following instructions and taking note of product warnings is especially important if you use a solution that contains hydrogen peroxide.

## Background

The U.S. Food and Drug Administration regulates contact lenses and certain contact lens care products as medical devices. Contact lenses require a prescription, and all products, including those relating to contact lenses, marketed to consumers must be determined to be safe and effective. (Even if you have perfect vision, and your contact lenses are just “decorative” or “colored,” a contact lens prescription is required by federal law.)

Before you choose a contact lens solution, talk to your eye-care provider about the best cleaning and disinfecting method for you. For instance, contact lens multipurpose solutions clean, disinfect, and condition contact lenses. Other lens cleaning products contain hydrogen peroxide, which requires special care for safe use.

Contact lens solutions are sold over the counter, which means that you don’t need a prescription. “But over-the-counter products are not all the same,” says Bernard P. Lepri, O.D., M.S., M.Ed., an FDA optometrist in the agency’s Contact Lens and Retinal Devices Branch.

Incorrect care of contacts can increase your risk of eye infections and injury—and can cause blindness in rare cases, Lepri adds.

Like multipurpose solutions, when hydro-



A red warning label and red tip remind you that contact lens solutions with hydrogen peroxide require special handling. (This is a sample bottle. Actual products may have a different design, depending on the brand.)

gen peroxide is used in certain contact lens solutions, it helps to clean and disinfect contact lenses by breaking up and removing trapped debris, protein, and fatty deposits.

Hydrogen peroxide solutions are preservative-free, which makes them a good option for those who are allergic or sensitive to preservatives in multipurpose solutions. But they are not risk-free.

### The Required Disinfecting Process

Before you use solution with hydrogen peroxide, read all warning labels (which often appear as *red* boxes on products) and read all instructions. Also note that the tip of the bottle is red. The red coloring is a reminder that these products require special handling.

“You should never put hydrogen peroxide directly into your eyes or on your contact lenses,” Lepri says. That’s because this kind of solution can cause stinging, burning, and damage—specifically to your cornea (the clear surface that covers your eye).

If you use a solution that has hydrogen peroxide you *absolutely must* follow the disinfecting process with a “neutralizer.” A neutralizer is always sold as part of your hydrogen peroxide cleaning solution kit. It turns the peroxide into water and oxygen, making it safe to put lenses into your eyes.

Neutralization can be either a one-step or two-step process. The one-step process neutralizes your lenses *during* the disinfecting stage, while the two-step process neutralizes your lenses *after* the disinfecting stage.

Some storage cases have a neutralizer built in, making it a one-step process. With others, you must add a neutralizing tablet that comes with the hydrogen peroxide solution. This is the two-step process.

### About Adverse Events

The FDA encourages healthcare professionals, patients, caregivers, and consumers to submit voluntary

## Checklist for Solutions With Hydrogen Peroxide

- ✓ Talk to your eye-care provider before deciding on the best cleaning and disinfecting method for your contact lenses. Never change your lens-care system before consulting your provider.
- ✓ Before you use a new solution, read all instructions on the box and bottle and follow them carefully. If you have questions, stop and contact your eye-care provider.
- ✓ Never share solution that contains hydrogen peroxide. Other people might confuse your solution with multipurpose solution and not follow instructions. This could result in damage to their eyes.
- ✓ Always use the special contact lens case that comes with each new bottle of solution. Never use a case other than the one that comes with each new bottle. (An old case would not neutralize the peroxide, which would cause burning, stinging and irritation when you put contacts in your eyes.)
- ✓ Leave contacts in the solution for at least 6 hours to allow the neutralizing process to finish.
- ✓ Never rinse your contact lenses with hydrogen peroxide solutions or put these solutions in your eyes.
- ✓ Report any eye problems with your contacts or solution to the FDA’s MedWatch (<https://www.accessdata.fda.gov/scripts/medwatch/>) voluntary reporting program.

reports of problems with medical products to MedWatch, FDA’s Safety Information and Adverse Event Reporting Program (<http://www.fda.gov/Safety/MedWatch/default.htm>).

The FDA’s Medical Device Reporting (MDR) regulation provides mandatory requirements for manufacturers, importers, and device user facilities to report certain device-related adverse events and product problems to FDA.

When it comes to solutions with hydrogen peroxide, the FDA has received reports of adverse events (unwanted experiences) such as burning and stinging of the eyes.

To reduce the risk of adverse events, remember to take note of the warnings that appear in red boxes on these products—and follow

all detailed directions for use. Also remember that the tips of product bottles are red to remind you to use special care.

Contact your eye-care provider if you have questions or concerns at any time. And, if you have any adverse reactions or problems with these products, report them to FDA’s MedWatch Program (<http://www.fda.gov/Safety/MedWatch/default.htm>).

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